JACKFOLIO

2024

Jack Bentley.
Product Design.

Me.

I have a keen interest in the technical aspects of design, as well as creating engaging visuals. With a passion for CAD, particularly 3D modelling, I strive to develop unique products, which solve problems and provide positive user experiences.

Skills.

Solidworks

Fusion 360

Keyshot

Indesign

Photoshop

Illustrator

Procreate

3D Printing

Technical Drawings

Prototyping

DFM

Branding

Design Experience.

Product Design BA
Nottingham Trent University
2019 - 2023

Junior Development Designer (Placement)
Diam International
2021- 2022

Temporary Development Designer
Diam International
2022 (Christmas)

Junior Development Designer
Diam International
2023 - Present

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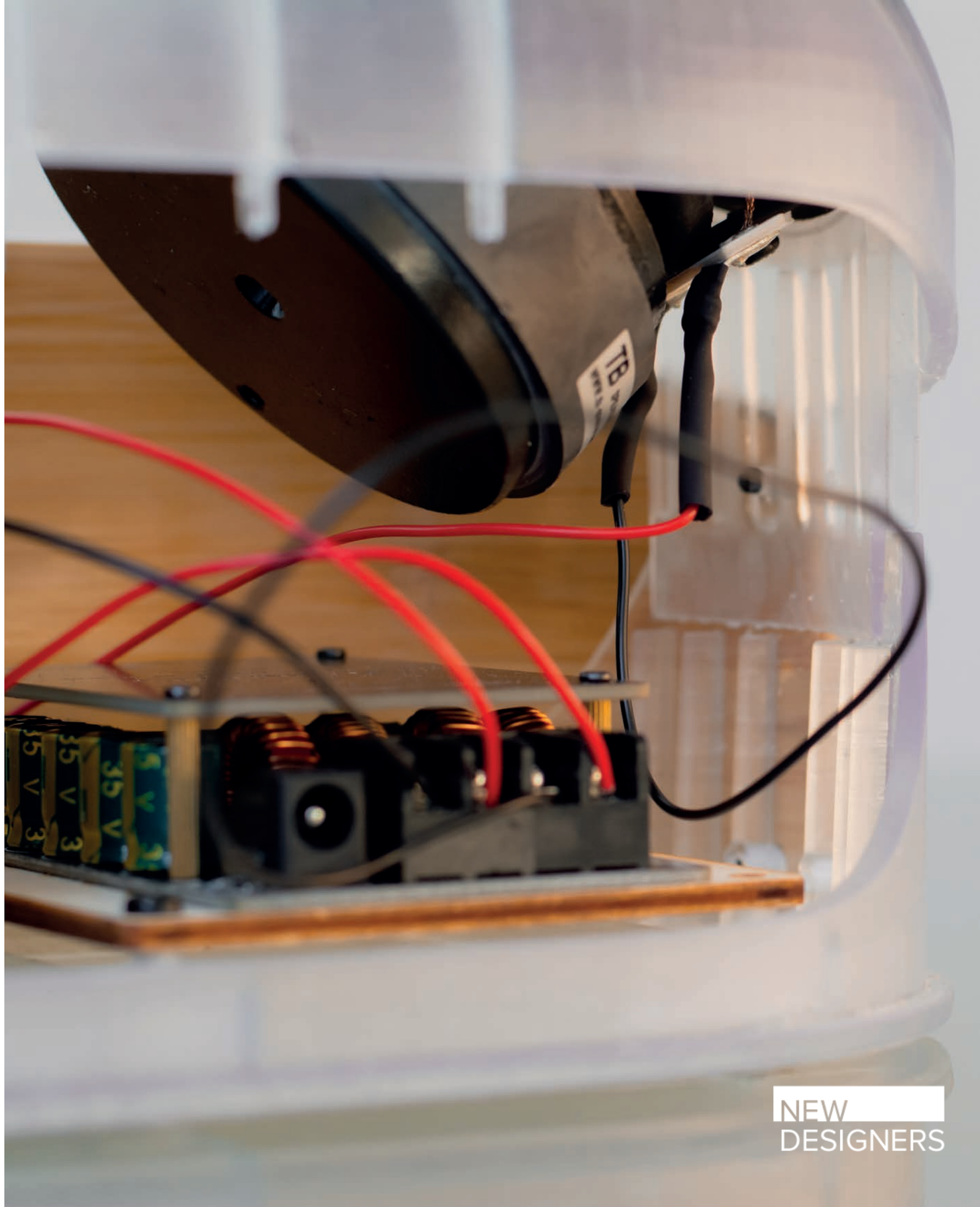
07977302249

Sustainable Bluetooth Speaker

Final Year University.
Commercial Project.

8 weeks

Design a portable Bluetooth speaker system that embodies / progresses a new language of sustainable aesthetics.



Trend Research Findings.

55%

of people say that it is **hard to trust the sustainability claims** of technology companies.

48%

of older millennials (33-41) think it is worth paying more for a technology product **made from sustainable materials** than one that isn't.

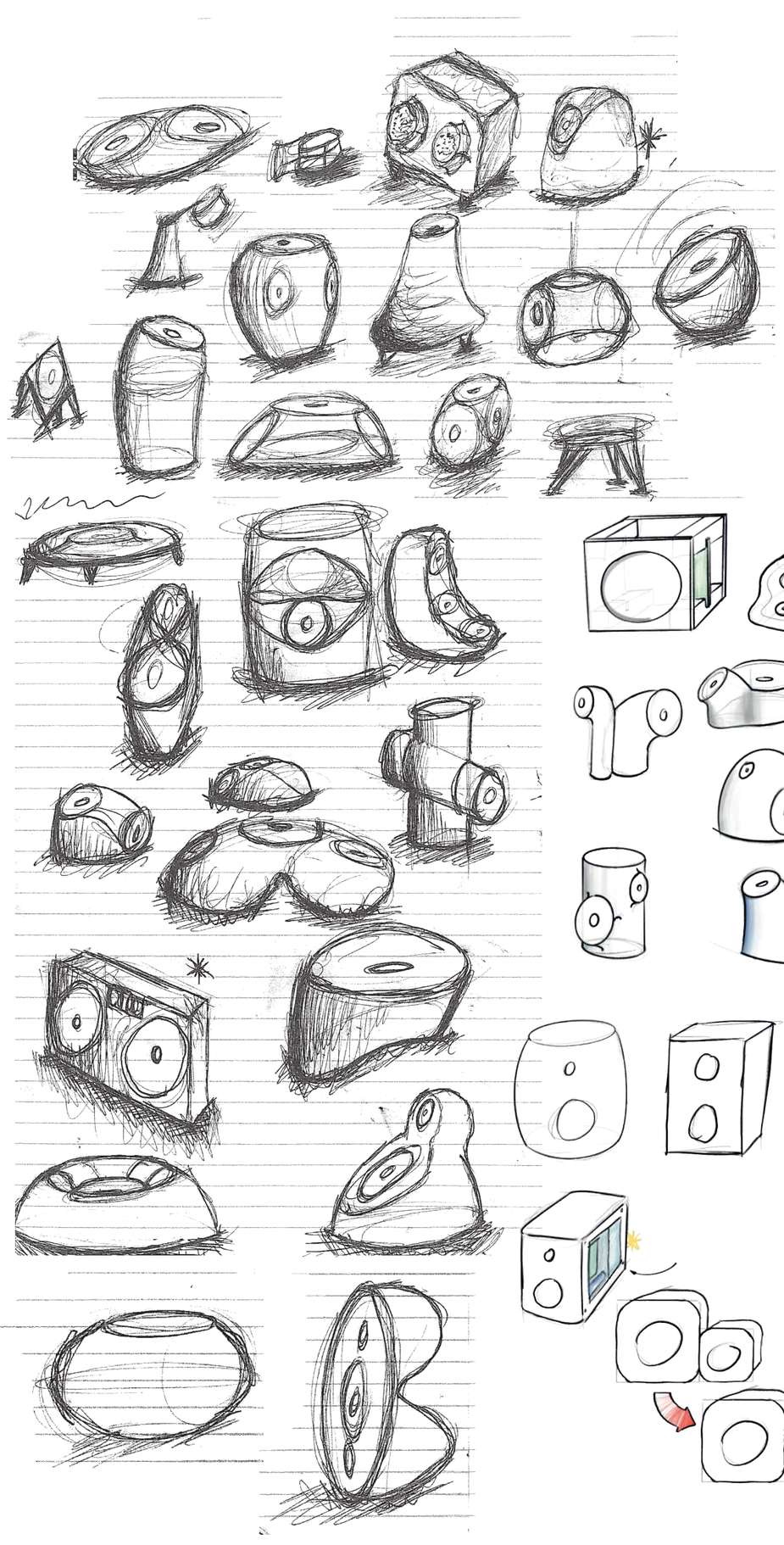
75%

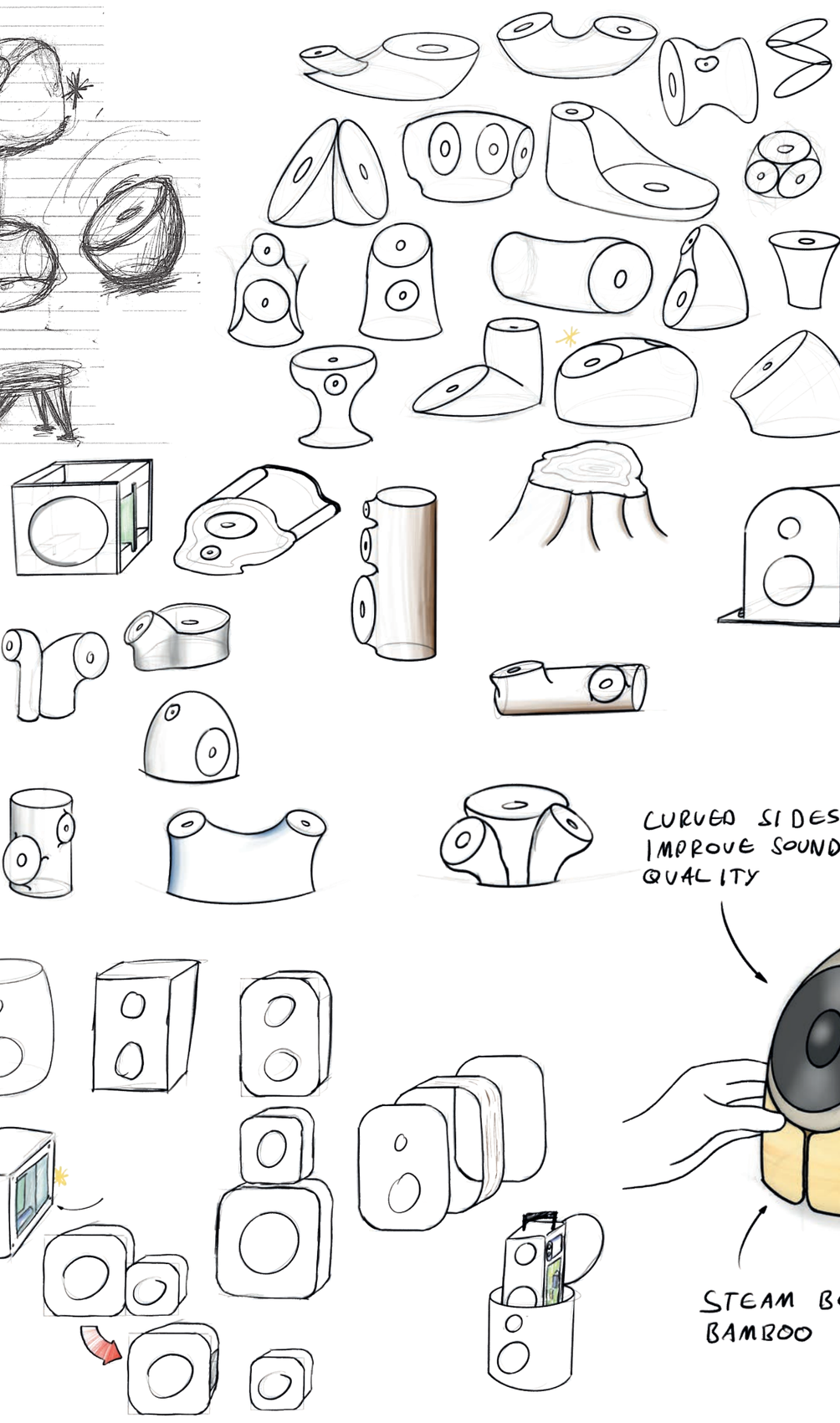
of older millennials said it is **worth paying more to access higher quality music** on streaming platforms, compared to the 69% average.

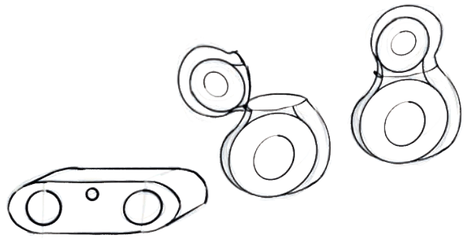
Re-framed Brief.

Design a Bluetooth speaker for the home, which instils trust between the user and the product.

The speaker should be aimed towards older millennials (33-41) who have higher levels of disposable income and are conscious about the environment and the impact that products they buy have on it.







CURVED SIDES IMPROVE SOUND QUALITY

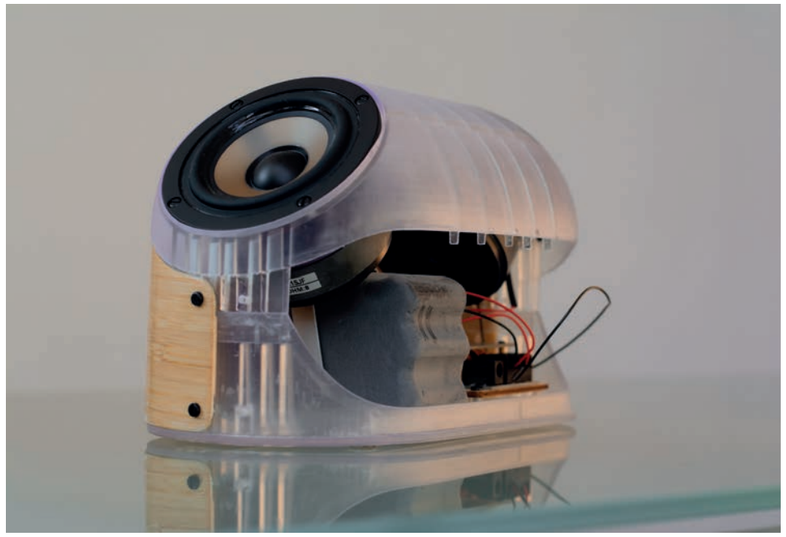
FROSTED PLASTIC FORMED AROUND A MOULD

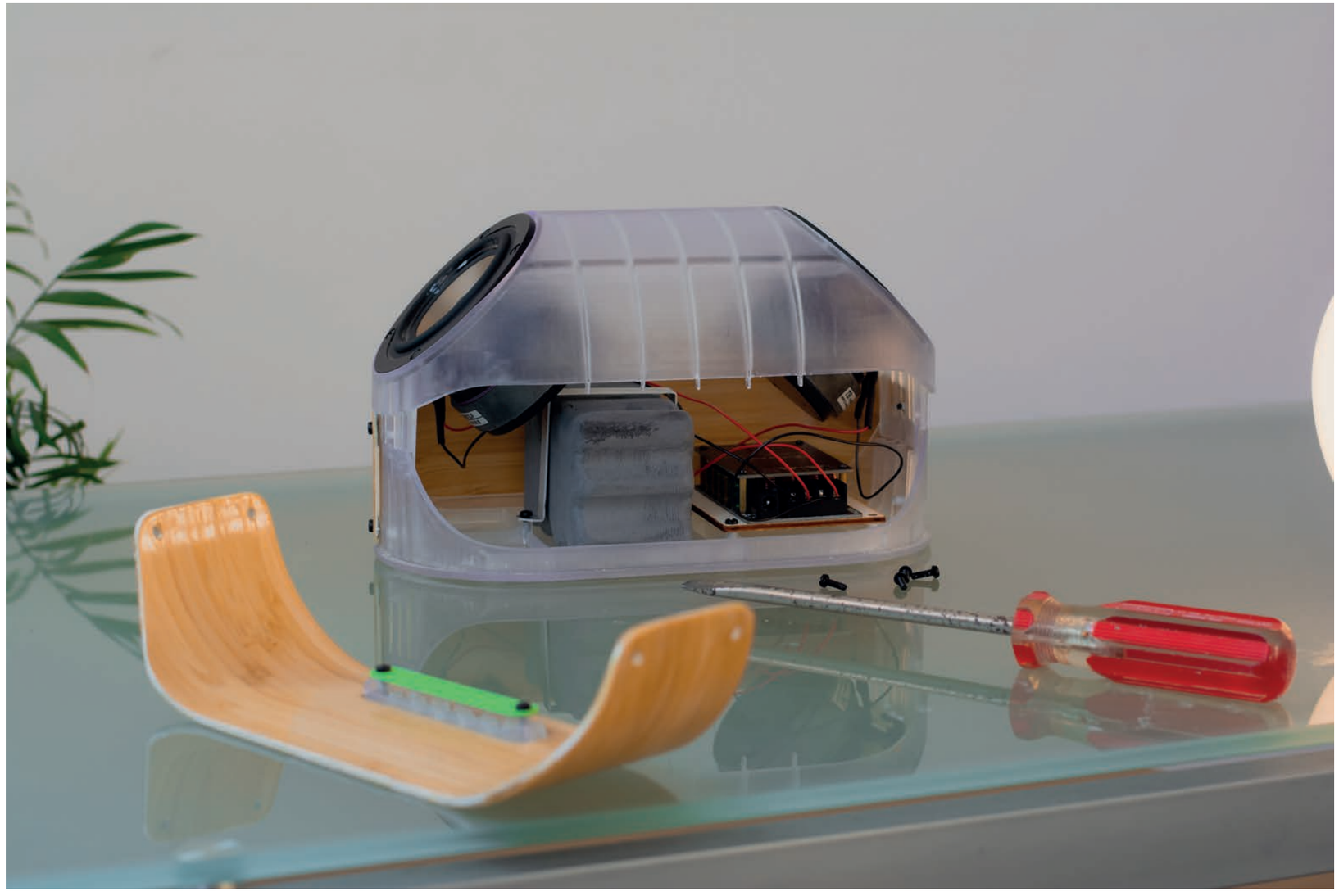
STEAM BENT BAMBOO

CAN SEE INSIDE SPEAKER

REMOVABLE SIDE PANELS TO ACCESS INTERNAL COMPONENTS

Final
Design.





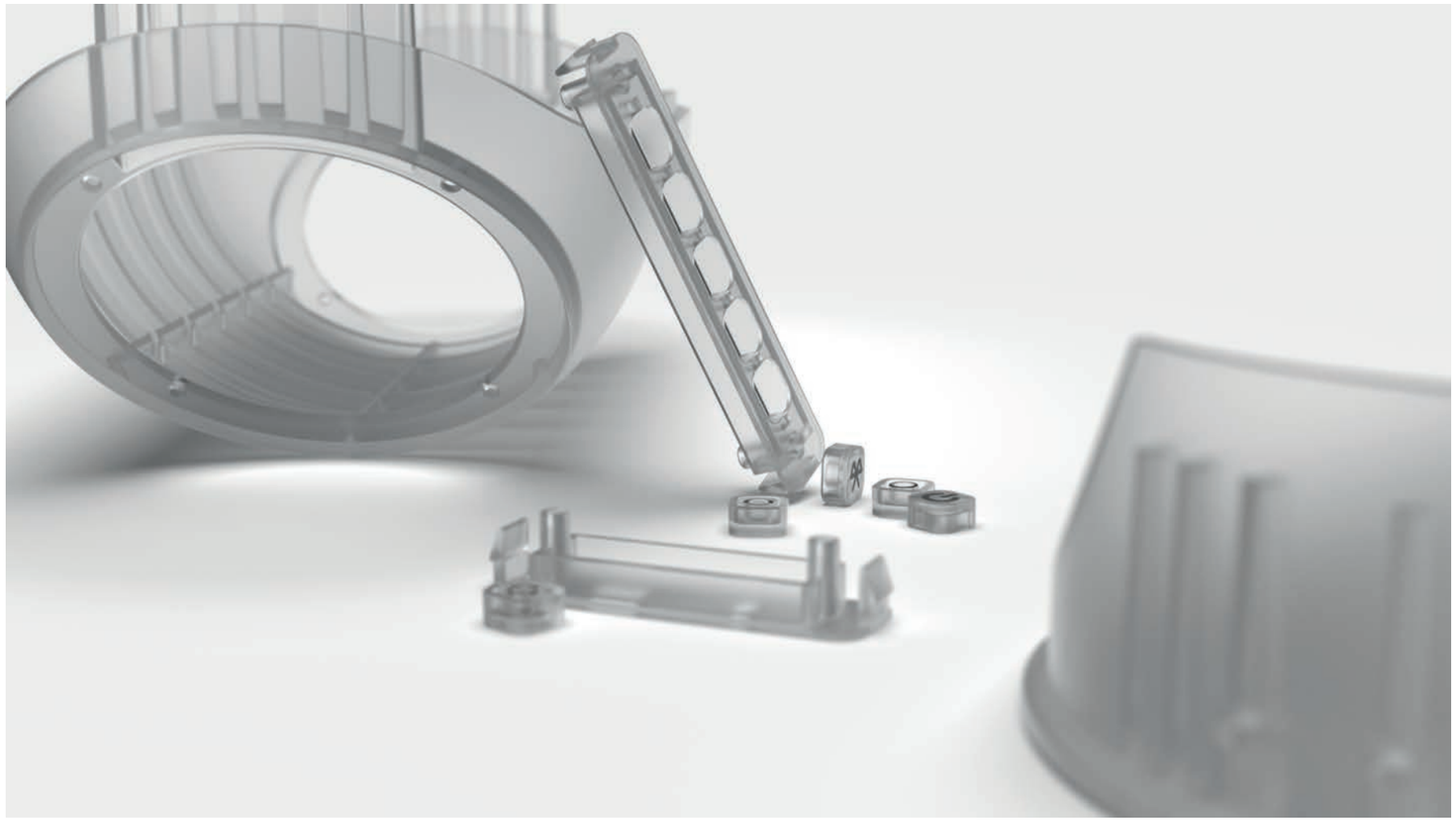
Speaker showcased at **New Designers.**

Following the brief, each aspect of the design was carefully considered to **instil trust** in the user, whilst also being as **sustainable** as possible.

Transparency.

In order to achieve the form of the initial design, as well as securely housing the internal components, the top and bottom sections are designed to be **injection moulded.**

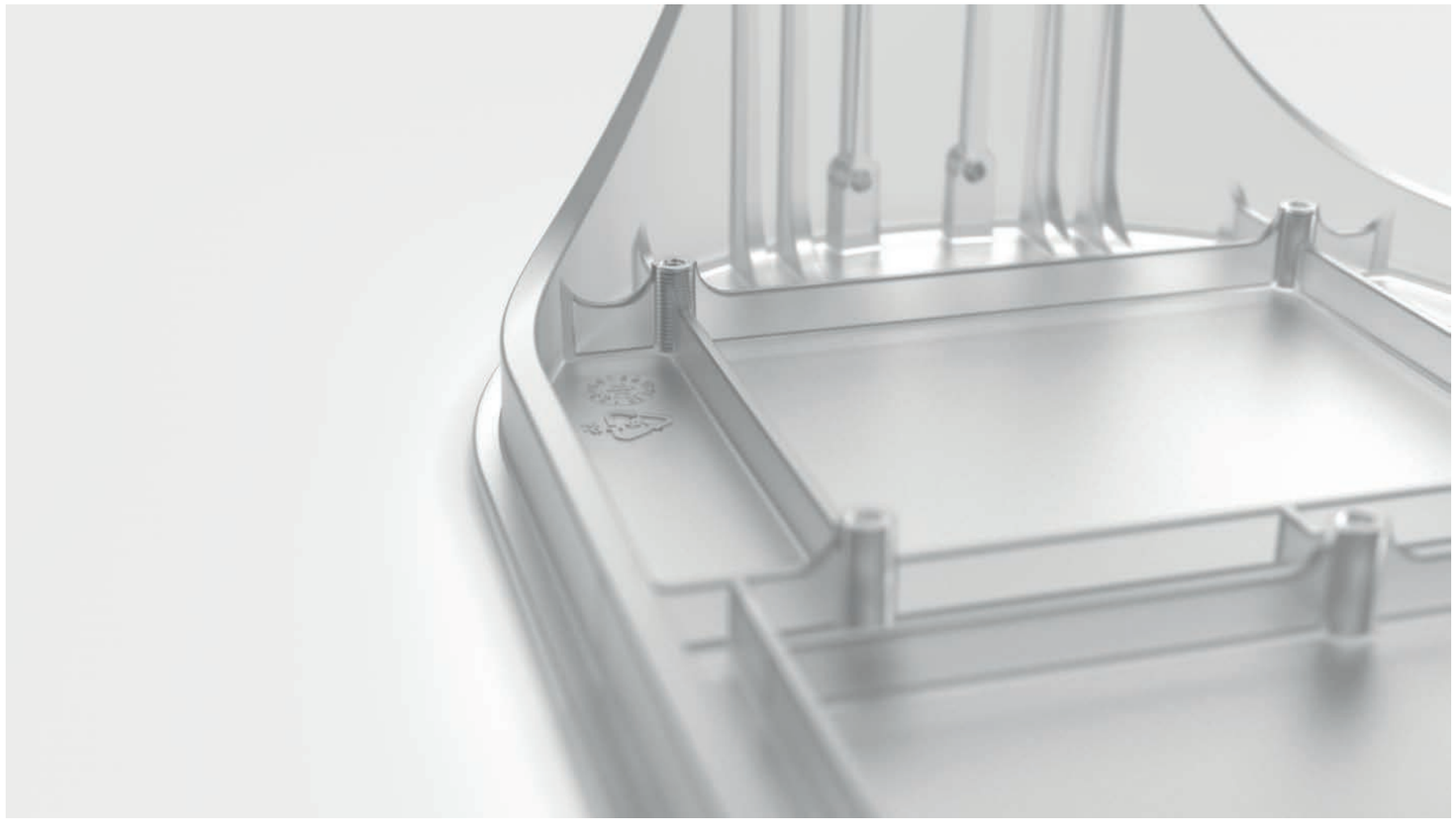
A **B-1 surface finish** is applied to **expose the internals** of the speaker, instilling trust, as well as maintaining a pleasing aesthetic.



Material Choice.

Bornewables™ RF365MO is the specified PP.

This was specially selected as it is made using **sustainably** sourced renewable feedstocks, derived from waste and residue vegetable oils such as **used cooking oil.**



Bamboo.

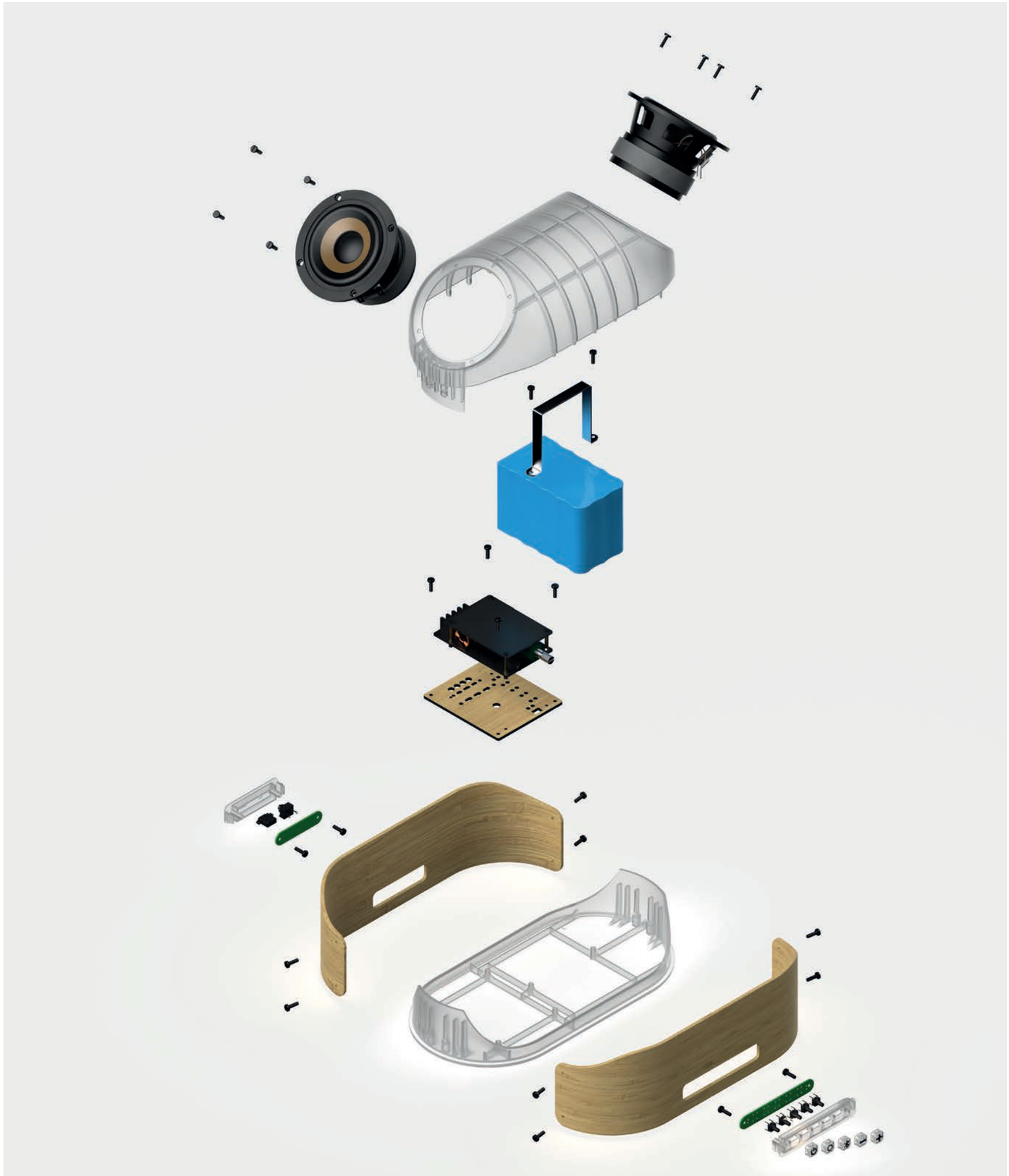
The side walls are made from **sustainably sourced bamboo.**

Three sheets layered together using VOC free wood glue and finished with a natural, plant based wood oil.

User Interface.

Designed with a simple and easy to use user interface.

High Quality Internal Components.



2 x **full range** Tang Band drivers positioned outwards to deliver sound to a full room.

High quality stereo amplifier.

Large 12V battery constructed from 18650 cells, recovered from **damaged E_bikes.**

All held together with easy to access screws, so that it is easy and **inviting** to take apart and **repair**.

Ugli - Modular Shelving System.

Final Year University.
Self Directed Project.

15 weeks

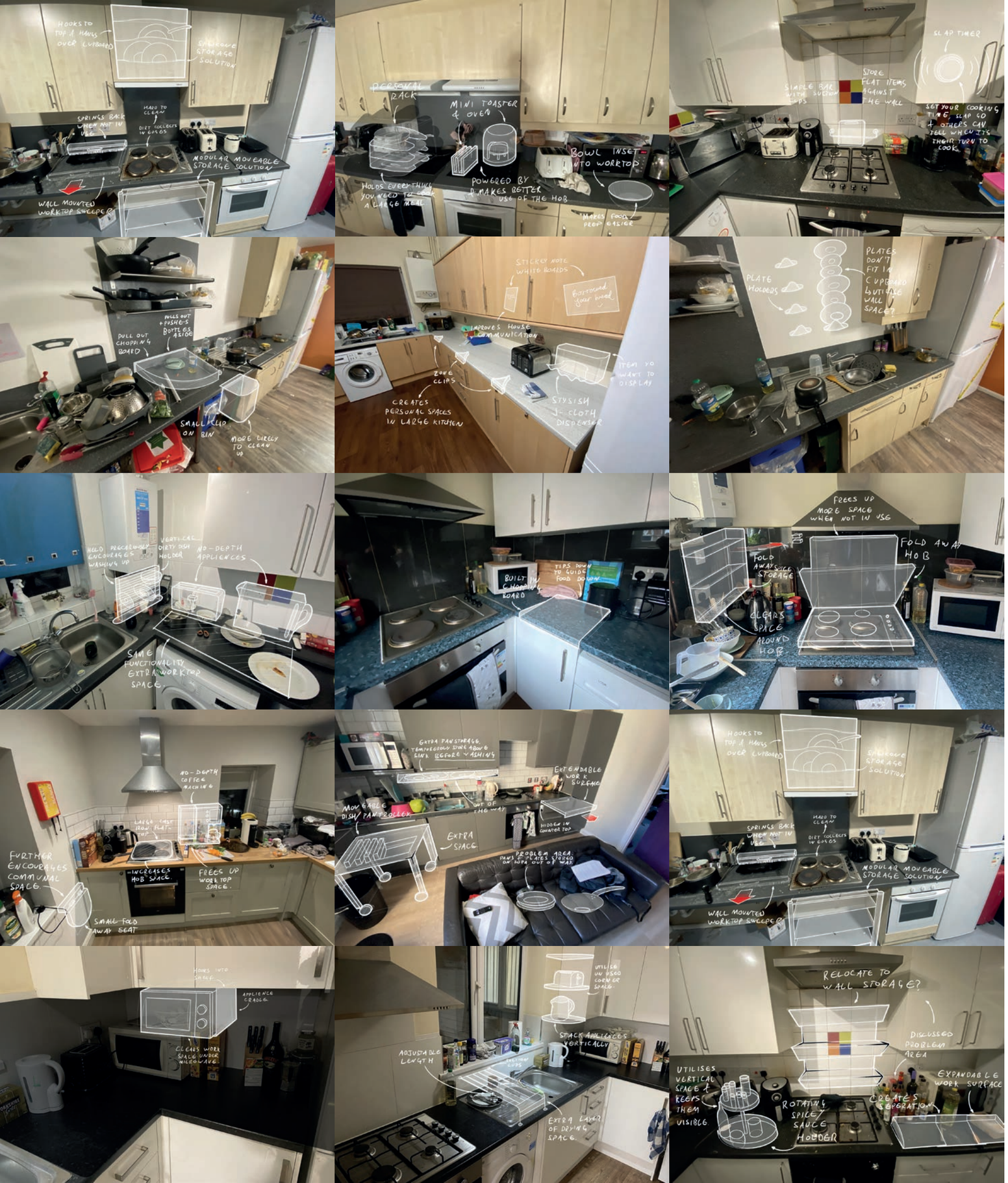
Product to help improve the student cooking experience.

Project Mission:

Improve the student cooking experience.

Shared student Kitchens are:

- Messy.
- Poorly designed.
- Lacking storage space.
- Not optimised for shared living.


HOOKS TO TOP & HANGS OVER CUPBOARD
SPACE SAVE STORAGE SOLUTION
SPRINGS BACK WHEN NOT IN USE
HARD TO CLEAN
DIRT COLLECTS IN GOGS
MODULAR MOVEABLE STORAGE SOLUTION
WALL MOUNTED WORKTOP SWEEPER
PERSONAL RACK
MINI TOASTER & OVEN
BOWL INSET INTO WORKTOP
POWERED BY & MAKES BETTER USE OF THE HOB
HOLDS EVERYTHING YOU NEED TO MAKE A LARGE MEAL
MAKES FOOD PREP EASIER
SIMPLE BAR WITH SUCTION CUPS
STORE FLAT ITEMS AGAINST THE WALL
SLAP TIMER
SET YOUR COOKING TIME, SLAP GO & OTHERS CAN TELL WHEN IT'S THEIR TURN TO COOK
PULL OUT CHOPPING BOARD
PULLS OUT & PUSHES BOTTLES ASIDE
SMALL CLIP ON BIN
MORE LIKELY TO CLEAN UP
STICKY NOTE WHITE BOARDS
Repurposed door board
IMPROVES HOUSE COMMUNICATION
ITEM YOU WANT TO DISPLAY
ZONE CLIPS
CREATES PERSONAL SPACES IN LARGE KITCHEN
STYLISH J-CLOTH DISPENSER
PLATE HOLDERS
PLATES DON'T FIT IN CUPBOARD UTILISE WALL SPACE?
HELD PREGROUND ENCOURAGES WASHING UP
VERTICAL DIRTY DISH HOLDER
NO-DEPTH APPLIANCES
SAME FUNCTIONALITY, EXTRA WORKTOP SPACE.
BUILT IN CHOPPING BOARD
TIPS DOWN TO GUIDE FOOD DOWN
FREES UP MORE SPACE WHEN NOT IN USE
FOLD AWAY HOB
FOLD AWAY SPICE STORAGE
CLEARS SPACE AROUND HOB
NO-DEPTH COFFEE MACHINE
LARGE CAST IRON PLATE
FURTHER ENCOURAGES COMMUNAL SPACE.
INCREASES HOB SPACE
FREES UP WORK TOP SPACE.
SMALL FOLD AWAY SEAT
EXTRA PAN STORAGE TEMPORARILY SAVE AROUND SINK BEFORE WASHING
EXTENDABLE WORK SURFACE
MOVEABLE DISH/PAN TROLLEY
OUT OF THE WAY
HIDDEN IN COUNTER TOP
EXTRA SPACE
PROBLEM AREA PANS & PLATES STORED OUT OF WAY
HOOKS INTO SHELF
APPLIENCE CRADLE
CLEARS WORK SPACE UNDER MICROWAVE
UTILISE UNUSED CORNER SPACE
STACK APPLIANCES VERTICALLY
ADJUSTABLE LENGTH
EXTRA LAYER OF DRYING SPACE.
RELOCATE TO WALL STORAGE?
DISCUSSED PROBLEM AREA
UTILISES VERTICAL SPACE & KEEPS THEM VISIBLE
ROTATING SPICE/SAUCE HOLDER
CREATES SEPERATION
EXPANDABLE WORK SURFACE

Primary Research + Ideation.

During the initial stages of the project, I visited many different shared student accommodations, conducted **interviews** with the students and **ideated** based on their responses.

This formed a strong, **target marked led direction** for the project.

Project Brief:

How might we design a solution which improves the student cooking experience by combating the minimal amount of usable space available in shared student kitchens.

Design a range of organisers / storage solutions which maximise the amount of available worktop space in a student kitchen by relocating loose items which usually congregate on the worktop.

The items that need to be relocated / repositioned include, but are not limited to; spices, plates, pans, cooking oils, tea, coffee and table top appliances.

This needs to be achieved in a flexible system which is designed to be very simple and as cost effective as possible.

Implement a feature(s) which synergises the cooking process for multiple people sharing the same space - ensuring that the product caters even more to a student market.

Subconsciously encourage healthy organisational practices in a way which will take no effort for the users to implement into their current cooking practices.

Through an iterative process involving **3D modelling**, **3D printing**, testing and evaluating, I ended up at my final design...

INJECTION MOULDABLE WITH THE ADDITION OF DRAFT & RADS

ADDITIONAL CLIP FEATURES WOULD NEED TO BE ADDED TO MAKE THIS IDEA VIABLE.

TABS AR HARD TO POSITION & CLICK IN PLACE.

REACHING ITEMS

LEG SHAPE GUIDES SHELF TO CORRECT LOCATION

MAKE THE EASY TO POSITION & STACK.

SHAPE OF LEGS REDUCE THE AMOUNT OF USABLE TABLE TOP SPACE.

LEGS GET IN THE WAY OF REACHING ITEMS IN THE SHELF LESS WHEN THEY SIT INSIDE EACH OTHER.

- MODEL EXPLORING CURVED LEGS TO GUIDE SHELF TO CORRECT LOCATION.
- SIMILAR STACKING METHOD AS PREVIOUS MODEL.

LARGE FILLETS UNDER LEGS MAKE THE SHELF STRONGER.

TOP SURFACE ISN'T VERY AESTHETICALLY APPEALING

2 CURVED LEGS EASILY GUIDE THE SHELF INTO THE CORRECT PLACE.

LEGS DON'T FIT DUE TO MISTAKE IN CAD MODEL

IDEA IS STILL ILLUSTRATED SUCCESSFULLY

WHEN CONNECTED, LARGE USEABLE SURFACE IS CREATED.

- TESTING ANOTHER HEXAGONAL SHAPED CLIP FOR SIDE OF SHELF.

PERTRUDING CLIP IS TOO HARD TO CONNECT

PREVIOUS POSITION WAS MORE EFFECTIVE.

WHEN CONNECTED, THERE IS A VERY STRONG FORCE, HOLDING AGAINST ALL ANGLES.

THIS PART PRINTED W ENOUGH TO MAKING IT FIT TOGETH WILL BE AD IN FUTURE PRO

PARTS DON'T EA BEND LOOSE WHE CONNECTED

- CURVING THE ENDS OF THE SHELF TO HELP GUIDE THEM INTO PLACE.
- TAB & SLOT INSIDE THE CURVE.

ITEMS CAN'T BE STORED INBETWEEN SHELVES LENGHWAYS DUE TO LEGS

CURVE GUIDES SHELVES TOGETHER WELL

LARGE PIECE WHICH COULD SNAP OFF

MINIMAL USEABLE SPACE IS TAKEN FROM THE SHELF SURFACE.

WITHOUT TAB & SLOT, SHELF WOULDN'T STAY STRAIGHT.

- MODEL FOLLOWING THE 2 PREVIOUS TESTER PIECES.
- LOOKING AT A REDUCED NUMBER OF CLIPS TO HOLD SIDES TOGETHER.

ANGULAR DESIGN COULD BE PERCEIVED AS BEING AGGRESSIVE.

2 CLIPS THE 2 P TOGETH

NO CLIPS STICK OUT PAST THE EDGE OF THE SHELF.

NO GAPS ARE LEFT WHEN CONNECTED, CREATING MORE USEABLE SPACE AREA.

-TESTING THE SHELVES OVERLAPPING AT THE TOP.

LARGE FILLETS AGAIN MAKE THE LEGS MUCH STRONGER

TAKES AWAY TOO MUCH SHELF SURFACE WHEN CONNECTED

THESE COULD BE INCORPERATED WITH RIBS IN THE FINAL DESIGN TO SUIT INJECTION MOULDING

NARROW LEGS MAKES IT HARDER TO STORE ITEMS ACROSS 2 SHELVES

VERY EASY TO SUCCESSFULLY MANUFACTURE

- SCALE SHELF TESTING ALL THE FEATURES WHICH WILL BE INCLUDED IN THE FINAL DESIGN.

WHEN STACKED THE SHELVES AREN'T FIXED VERTICALLY

THIS COULD BE

LARGE, FLAT AREA IS PRODUCED WHEN SHELVES ARE CLIPPED FRONT TO BACK

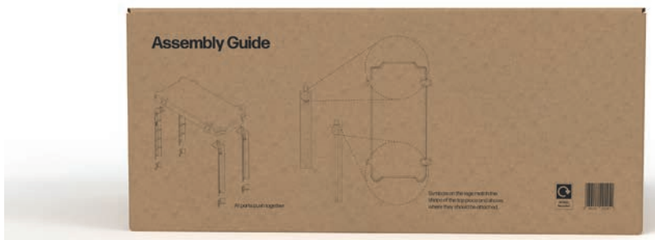
VERY THIN LEG PROFILE MAKING IT EASIER TO GRAB ITEMS FROM INSIDE THE SHELF.

LESS DOU CLIP IN THIS MODE

The UGLI, Modular Shelving System aims to **maximise the available worktop space** in cramped, messy, poorly designed student kitchens.

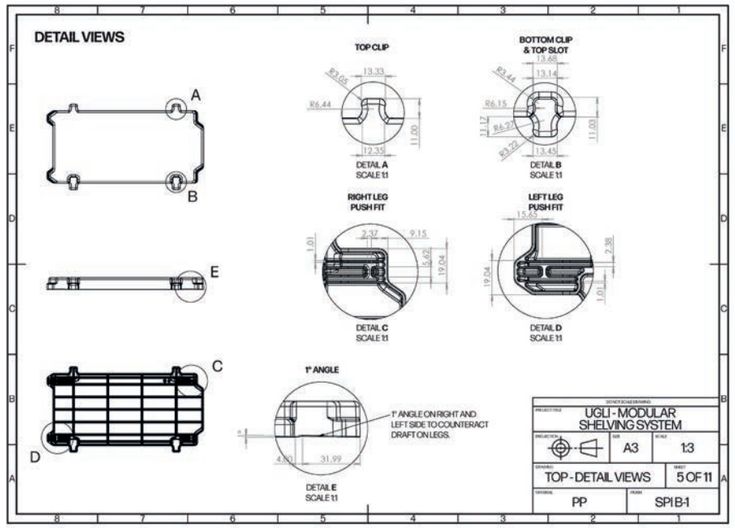
The push together, injection moulded design increases **strength** as well as **affordability** for a low income **student** market.

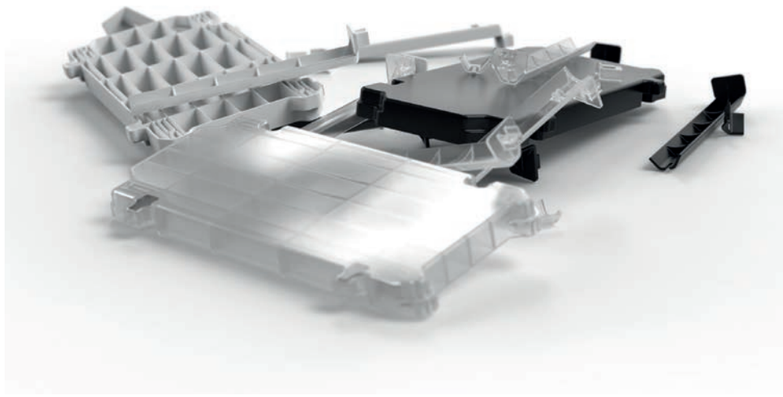
Final Outcome.

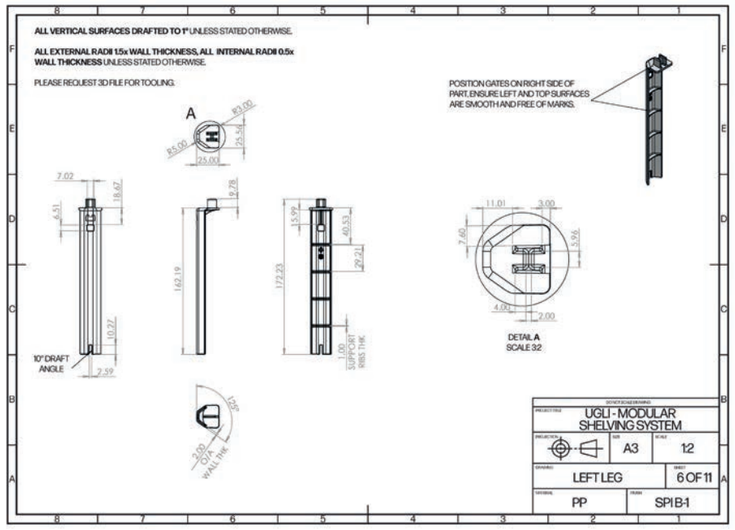


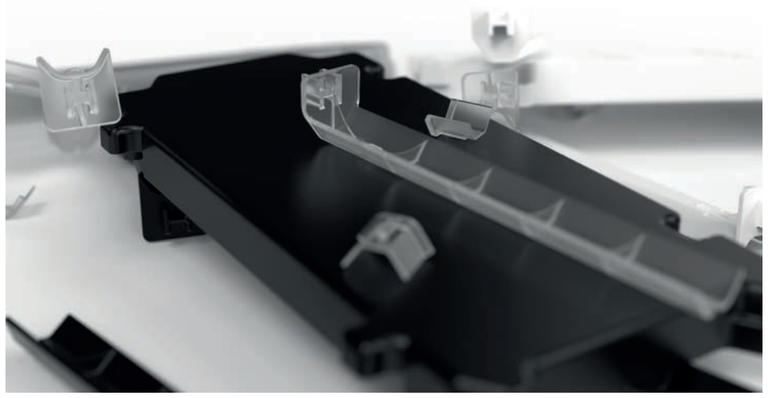
The range is developed to be sold in either a **3 pack** or a **6 pack** and arrives in **minimal packaging** with simple assembly instructions on the outside of the box.

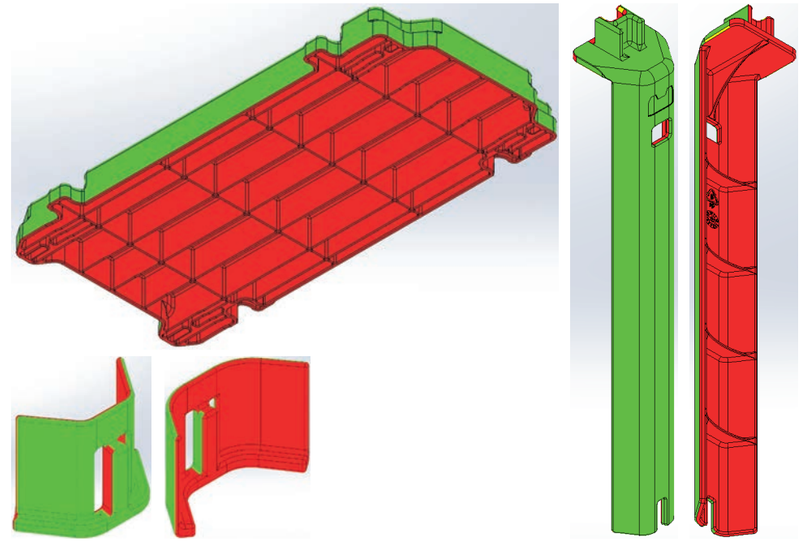
Black, white and clear allow the shelves to blend seamlessly into any environment, whilst also adding a layer of **visual interest.**

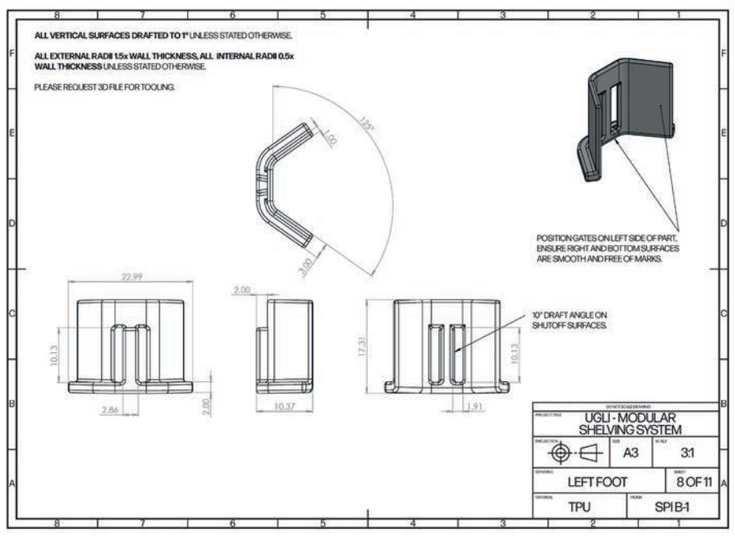





ALL VERTICAL SURFACES DRAFTED TO 1° UNLESS STATED OTHERWISE.
ALL EXTERNAL RADII 1.5x WALL THICKNESS, ALL INTERNAL RADII 0.5x WALL THICKNESS UNLESS STATED OTHERWISE.
PLEASE REQUEST 3D FILE FOR TOOLING.
POSITION GATES ON RIGHT SIDE OF PART, ENSURE LEFT AND TOP SURFACES ARE SMOOTH AND FREE OF MARKS.
10° DRAFT ANGLE
DETAIL A SCALE 3:2
UGLI - MODULAR SHELVING SYSTEM
A3
1:2
LEFT LEG
6 OF 11
PP
SPI B-1






ALL VERTICAL SURFACES DRAFTED TO 1° UNLESS STATED OTHERWISE.
ALL EXTERNAL RADII 1.5x WALL THICKNESS, ALL INTERNAL RADII 0.5x WALL THICKNESS UNLESS STATED OTHERWISE.
PLEASE REQUEST 3D FILE FOR TOOLING.
POSITION GATES ON LEFT SIDE OF PART, ENSURE RIGHT AND BOTTOM SURFACES ARE SMOOTH AND FREE OF MARKS.
10° DRAFT ANGLE ON SHUTOFF SURFACES.
UGLI - MODULAR SHELVING SYSTEM
A3
3:1
LEFT FOOT
8 OF 11
TPU
SPI B-1

Injection Moulded.

This was chosen as the manufacture method as the cost had to be kept as low as possible. The shelves had to be designed out of different parts which clicked together, this led to careful consideration towards the **technical aspects** of the design.

Branding.

The “UGLI” brand was created to go hand in hand with the product.

The **loud** and **bold** branding helps it appeal to a younger student market.

The design of the shelves is also heavily driven by the needs of the product and the **limitations of injection moulding.**

Creating a strong set of brand values early on helped the development of other aspects of the project such as colour schemes of the product, presentation documents and packaging.

UGLI

Affordable.
Functional.
Design.

Mission Statement.

Ugli is a product design brand which improves everyday experiences by offering affordable, functional solutions.

Ugli follows a no bullshit design approach, using iterative processes to develop optimised and justified outcomes.

Ugli doesn’t claim to follow any particular design style, it instead produces products which work; solving specific problems in the best way possible.

Play - Spotify Music Player

Second Year University Project.

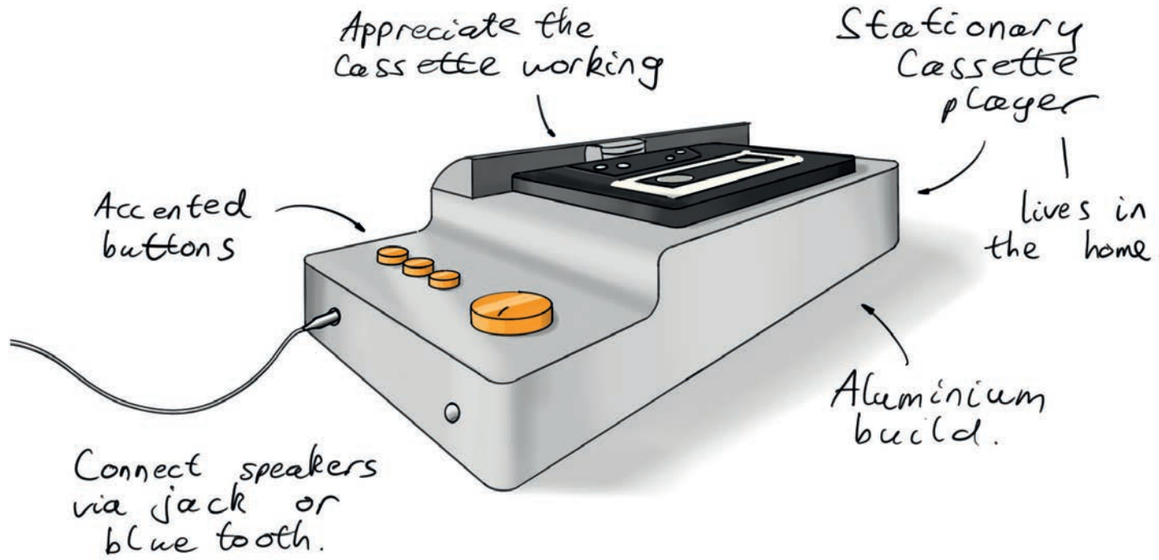
5 weeks

How might we create a modern, enhanced cassette tape listening experience.

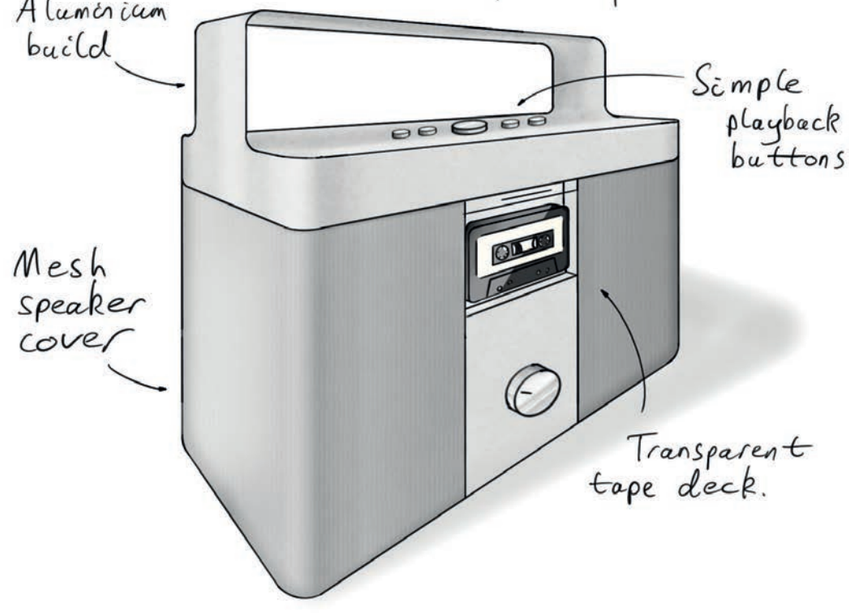
Concept Ideas.

Physical Spotify Player

Exposed Cassette Player



Modern Boombox



After initial ideation, these were the 3 concepts I considered for this project.

Final Design.

A fresh, but familiar way to experience music.

Download 4 playlists through the Spotify app.

Listen using the simplified user interface, inspired by cassette players.

40 Second Animated Story Board.

Please click here

Or scan this

Junior Development Designer - DIAM

Current job role.

My job role and responsibilities.

What is DIAM ?

Diam is an international **POS** (point of sale) company with offices in over 20 countries around the world.

They are market leaders in creating **tailor-made retail and merchandising solutions** to display products from hundreds of different brands.

During my role I have worked on **hundreds** of different projects, gaining a **strong understanding** in the following.

- Injection moulding
- Sheet metal fabrications
- CNC machining
- 3D printing
- Laser cutting
- Vacuum forming
- Plastic fabrications
- Woodworking
- Sonic welding
- Digital printing
- Screen printing

Mass Team.

I am a key member of the Mass / retail team, working on a constant stream of projects for many different brands.

3D Printing.

I manage a suite of Formlabs SLA 3D printers.

This role includes:

- Managing the 3D printing requests from 20+ Designers.
- Maintaining / repairing the fleet of printers.
- Ordering materials.
- Maintaining a keen interest in 3D printing and materials to keep the room operating in the best way possible.

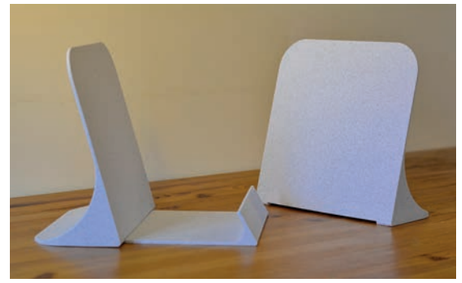
Training & Managing Placement Students.

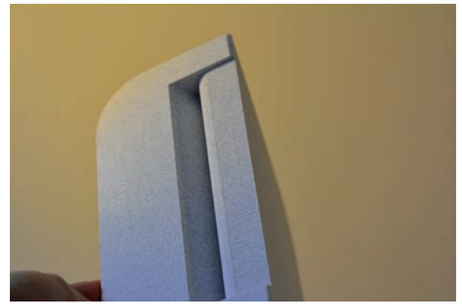
I am responsible for training the 1 to 2 placement students which come through our student program each year, as well as training new members of the team.

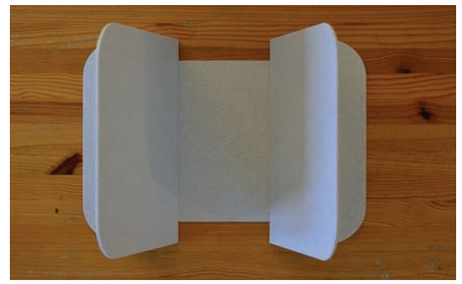
Personal 3D Printing Projects.

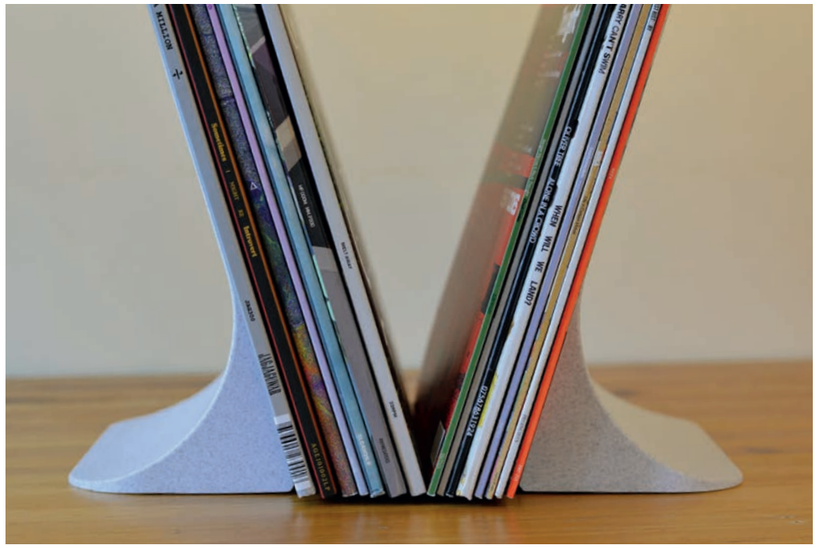
Washing up brush holder with drainage to fit round the specific sink profile in my kitchen. Modelled on **Fusion 360**, Printed on **Bambu Labs A1**

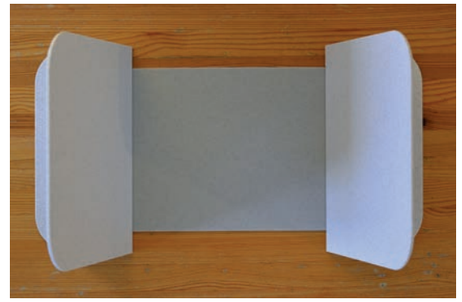
Minimalist Vinyl record holder. Properly supports the records without the worry of them warping. Allows me to easily flip through my small collection. Base can be printed larger when my collection requires it. Modelled on **Shapr3D** and **Fusion 360**, Printed on **Bambu Labs A1**



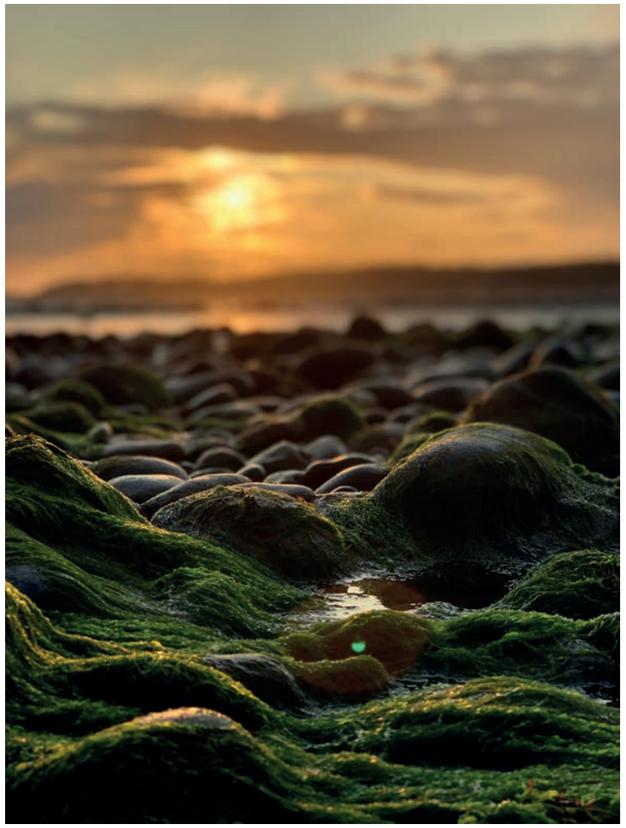








Photography.



Thank you for looking !

Get in touch:

@jackbentley_design

www.linkedin.com/in/jackbentley-design

jcbentley@hotmail.co.uk

07977302249